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THE DISADVANTAGED CHILD AND THE LEARNING PROCESS.

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THE LOWER-CLASS CHILD COMES TO SCHOOL WITH FEW OF THE SKILLS NECESSARY TO MEET SCHOOL DEMANDS THAT HIS INITIAL FAILURE IS ALMOST INEVITABLE, AND THE SCHOOL EXPERIENCE BECOMES NEGATIVELY RATHER THAN POSITIVELY REINFORCED. THIS POOR PREPARATION IS THE RESULT OF SUCH "MACROSCOPIC" FACTORS AS SUBSTANDARD HOUSING, UNSTABLE FAMILY LIFE, LACK OF OPPORTUNITY FOR INDIVIDUATION, AND SCARCITY OF SUCH OBJECTS AS TOYS, PENCILS, AND BOOKS, WHICH ARE THE TOOLS OF LEARNING IN THE SCHOOL. IT ALSO IS THE RESULT OF PSYCHOLOGICAL FACTORS IN THE ENVIRONMENT. REDUCED "VARIETY OF INPUT" AND STIMULUS DEPRIVATION RELATIVE TO HIS MATURATIONAL CAPACITY MAY LEAVE THE LOWER-CLASS CHILD DEFICIENT IN (1) PERCEPTUAL DISCRIMINATION, (2) ATTENTIONAL MECHANISMS, (3) EXPECTATION OF REWARD FOR COMPLETED TASKS, AND (4) THE ABILITY TO USE ADULTS AS SOURCES OF INFORMATION, ALL OF WHICH ARE SKILLS REQUIRED FOR LEARNING IN SCHOOL. IN THE NONVERBAL SLUM HOME, THE CHILD ALSO MAY FAIL TO ACQUIRE A LANGUAGE-CONCEPT SYSTEM AND FACTUAL KNOWLEDGE ABOUT HIMSELF EQUAL TO THE MIDDLE-CLASS CHILD'S. RESEARCH SUGGESTS THAT EARLY INTERVENTION IN LANGUAGE AREAS, PERHAPS PRECEDED BY AN EMPHASIS ON PERCEPTUAL TRAINING, CAN FACILITATE THE TRANSITION FROM HOME TO SCHOOL. THE SCHOOL SHOULD ALSO DEVISE A PLAN TO INSURE THAT EACH CHILD CAN MEET ITS REQUIREMENTS. THIS ARTICLE WAS PUBLISHED IN "EDUCATION IN DEPRESSED AREAS," A BOOK EDITED BY A.H. PASSOW AND PUBLISHED BY TEACHERS COLLEGE PRESS, COLUMBIA UNIVERSITY, 525 WEST 120TH STREET, NEW YORK, NEW YORK 10027. (J6)

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Martin Deutsch | **The Disadvantaged Child and the Learning Process**

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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This paper will discuss the interaction of social and developmental factors and their impact on the intellectual growth and school performance of the child. It will make particular reference to the large number of urban children who come from marginal social circumstances. While much of the discussion will be speculative, where appropriate it will draw on data from the field, and will suggest particular relationships and avenues for future investigation or demonstration.

Among children who come from lower-class socially impoverished circumstances, there is a high proportion of school failure, school drop-outs, reading and learning disabilities, as well as life adjustment problems. This means not only that these children grow up poorly equipped academically, but also that the effectiveness of the school as a major institution for socialization is diminished. The effect of this process is underlined by the fact that this same segment of the population contributes disproportionately to the delinquency and other social deviancy statistics.

The thesis here is that the lower-class child enters the school situation so poorly prepared to produce what the school demands that initial failures are almost inevitable, and the school experience becomes negatively rather than positively reinforced. Thus the child's experience in school does nothing to counteract the invidious influences to which he is exposed in his slum, and sometimes segregated, neighborhood.

We know that children from underprivileged environments tend to come to school with a qualitatively different preparation for the demands of both the learning process and the behavioral requirements of the classroom. These are various differences in the kinds of socializing experiences these children have had, as contrasted with the middle-class child. The culture of their environment is a different one from the culture that has molded the school and its educational techniques and theory.

We know that it is difficult for all peoples to span cultural discontinuities, and yet we make little if any effort to prepare administrative person-

nel or teachers and guidance staff to assist the child in this transition from one cultural context to another. This transition must have serious psychological consequences for the child, and probably plays a major role in influencing his later perceptions of other social institutions as he is introduced to them.

It must be pointed out that the relationship between social background and school performance is not a simple one. Rather, evidence which is accumulating points more and more to the influence of background variables on the patterns of perceptual, language, and cognitive development of the child and the subsequent diffusion of the effects of such patterns into all areas of the child's academic and psychological performance. To understand these effects requires delineating the underlying skills in which these children are not sufficiently proficient. A related problem is that of defining what aspects of the background are most influential in producing what kinds of deficits in skills.

Environmental Factors

Let us begin with the most macroscopic background factors. While it is likely that slum life might have delimited areas that allow for positive growth and that the middle-class community has attributes which might retard healthy development, generally the combination of circumstances in middle-class life is considerably more likely to furnish opportunities for normal growth of the child. At the same time, slum conditions are more likely to have deleterious effects on physical and mental development. This is not to say that middle-class life furnishes a really adequate milieu for the maximum development of individual potential: it doesn't. The fact that we often speak as though it does is a function of viewing the middle-class environment in comparison to the slum. Middle-class people who work and teach across social-class lines often are unable to be aware of the negative aspects of the middle-class background because of its apparent superiority over the less advantageous background provided by lower-class life. We really have no external criterion for evaluating the characteristics of a milieu in terms of how well it is designed to foster development; as a result we might actually be measuring one area of social failure with the yardstick of social catastrophe.

It is true that many leading personalities in twentieth-century American life have come from the slums, and this is a fact often pointed out by nativistic pragmatists in an effort to prove that if the individual "has it in him" he can overcome—and even be challenged by—his humble surroundings. This argument, though fundamentally fallacious, might have had more to recommend it in the past. At the turn of the century we were

a massively vertical mobile society—that is, with the exception of certain large minority groups such as the Negroes, the Indians, and the Mexican-Americans who were rarely allowed on the social elevator. In the mid-twentieth century, it is now increasingly possible for all groups to get on, but social and economic conditions have changed, and the same elevator more frequently moves in two directions or stands still altogether. When it does move, it goes more slowly, and, most discouragingly, it also provides an observation window on what, at least superficially, appears to be a most affluent society. Television, movies, and other media continually expose the individual from the slum to the explicit assumption that the products of a consumer society are available to all—or, rather, as he sees it, to all but him. In effect, this means that the child from the disadvantaged environment is an outsider and an observer—through his own eyes and those of his parents or neighbors—of the mainstream of American life. At the same time, when the child enters school he is exposing himself directly to the values and anticipations of a participant in that mainstream—his teacher. It is not sufficiently recognized that there is quite a gap between the training of a teacher and the needs, limitations, and unique strengths of the child from a marginal situation. This gap is, of course, maximized when the child belongs to a minority group that until quite recently was not only excluded from the mainstream, but was not even allowed to bathe in the tributaries.

What are some of the special characteristics of these children, and why do they apparently need exceptional social and educational planning? So often, administrators and teachers say, they are children who are "curious," "cute," "affectionate," "warm," and independently dependent in the kindergarten and the first grade, but who so often become "alienated," "withdrawn," "angry," "passive," "apathetic," or just "trouble-makers" by the fifth and sixth grade. In our research at the Institute for Developmental Studies, it is in the first grade that we usually see the smallest differences between socio-economic or racial groups in intellectual, language, and some conceptual measures, and in the later grades that we find the greatest differences in favor of the more socially privileged groups. From both teacher's observations and the finding of this increasing gap, it appears that there is a failure on some level of society and, more specifically, the educational system. Was the school scientifically prepared to receive these children in the first place? And, in addition, were the children perhaps introduced to the individual demands of the larger culture at too late an age—that is, in first grade?

Before discussing these psychological products of social deprivation, it is appropriate to look more closely at the special circumstances of Negro

slum residents. In the core city of most of our large metropolitan areas, 40 to 70 per cent of the elementary school population is likely to be Negro. In my observations, through workshops in many of these cities, I have often been surprised to find how little real comprehension of the particular problems of these youngsters exists as part of the consciousness of the Negro or white middle-class teachers. While in middle-class schools there is great sensitivity to emotional climates and pressures and tensions that might be operating on the child in either the home or the school, in lower-class schools the problems of social adaptation are so massive that sensitivity tends to become blunted.

In the lower-class Negro group there still exist the sequelae of the conditions of slavery. While a hundred years have passed, this is a short time in the life of a people. And the extension of tendrils of the effects of slavery into modern life has been effectively discouraged only in the last few decades, when there have been some real attempts to integrate the Negro fully into American life. It is often difficult for teachers and the personnel of other community agencies to understand the Negro lower-class child—particularly the child who has come, or whose parents have come, from the rural South. There is a whole set of implicit and explicit value systems which determine our educational philosophies, and the institutional expectation is that all children participate in these systems. And yet for these expectations to be met, the child must experience some continuity of socio-cultural participation in and sharing of these value systems before he comes to school. This is often just not the case for the child who comes from an encapsulated community, particularly when the walls have been built by the dominant social and cultural forces that have also determined the value systems relating to learning.

A recent article in *Fortune* magazine asked why the Negro failed to take full advantage of opportunities open to him in American life. At least part of the answer is that the Negro has not been fully integrated into American life, and that even knowledge about particular occupations and their requirements is not available outside the cultural mainstream. Implications of this for the aspirations and motivations of children will be discussed later.

Another source of misunderstanding on the part of school and social agency people is the difficulty of putting in historical perspective the causal conditions responsible for the high percentage of broken homes in the Negro community. Implications of this for the child's emotional stability are very frequently recognized, but the effects on the child's motivation, self-concept, and achievement orientation are not often understood.

The Negro family was first broken deliberately by the slave traders and the plantation owners for their own purposes. As was pointed out earlier, the hundred years since slavery is not a very long time for a total social metamorphosis even under fostering conditions—and during that period the Negro community has been for the most part economically marginal and isolated from the contacts which would have accelerated change. The thirteen depressions and recessions we have had since Emancipation have been devastating to this community. These marginal economic and encapsulated social circumstances have been particularly harsh on the Negro male. The chronic instability has greatly influenced the Negro man's concept of himself and his general motivation to succeed in competitive areas of society where the rewards are greatest. All these circumstances have contributed to the instability of the Negro family, and particularly to the fact that it is most often broken by the absence of the father. As a result, the lower-class Negro child entering school often has had no experience with a "successful" male model or thereby with a psychological framework in which effort can result in at least the possibility of achievement. Yet the value system of the school and of the learning process is predicated on the assumption that effort will result in achievement.

To a large extent, much of this is true not only for the Negro child but for all children who come from impoverished and marginal social and economic conditions. These living conditions are characterized by great overcrowding in substandard housing, often lacking adequate sanitary and other facilities. While we don't know the actual importance, for example, of moments of privacy, we do know that the opportunity frequently does not exist. In addition, there are likely to be large numbers of siblings and half-siblings, again with there being little opportunity for individuation. At the same time, the child tends to be restricted to his immediate environment, with conducted explorations of the "outside" world being infrequent and sometimes non-existent. In the slums, and to an unfortunately large extent in many other areas of our largest cities, there is little opportunity to observe natural beauty, clean landscapes or other pleasant and aesthetically pleasing surroundings.

In the child's home, there is a scarcity of objects of all types, but especially of books, toys, puzzles, pencils, and scribbling paper. It is not that the mere presence of such materials would necessarily result in their productive use, but it would increase the child's familiarity with the tools he'll be confronted with in school. Actually, for the most effective utilization of these tools, guidance and explanations are necessary from the earliest time of exposure. Such guidance requires not only the presence

of aware and educated adults, but also time—a rare commodity in these marginal circumstances. Though many parents will share in the larger value system of having high aspirations for their children, they are unaware of the operational steps required for the preparation of the child to use optimally the learning opportunities in the school. Individual potential is one of the most unmarketable properties if the child acquires no means for its development, or if no means exist for measuring it objectively. It is here that we must understand the consequences of all these aspects of the slum matrix for the psychological and cognitive development of the child.

Psychological Factors

A child from any circumstance who has been deprived of a substantial portion of the variety of stimuli which he is maturationally capable of responding to is likely to be deficient in the equipment required for learning.

Support for this is found in Hunt who, in discussing Piaget's developmental theories, points out that, according to Piaget, "... the rate of development is in substantial part, but certainly not wholly, a function of environmental circumstances. Change in circumstances is required to force the accommodative modifications of schemata that constitute development. Thus, the greater the variety of situations to which the child must accommodate his behavioral structures, the more differentiated and mobile they become. Thus, the more new things a child has seen and the more he has heard, the more things he is interested in seeing and hearing. Moreover, the more variation in reality with which he has coped, the greater is his capacity for coping." (2, pp. 258-259).

This emphasis on the importance of variety in the environment implies the detrimental effects of lack of variety. This in turn leads to a concept of "stimulus deprivation." But it is important that it be correctly understood. By this is not necessarily meant any restriction of the quantity of stimulation, but, rather, a restriction to a segment of the spectrum of stimulation potentially available. In addition to the restriction in variety, from what is known of the slum environment, it might be postulated that the segments made available to these children tend to have poorer and less systematic ordering of stimulation sequences, and would thereby be less useful to the growth and activation of cognitive potential.

This deprivation has effects on both the formal and the contentual aspects of cognition. By "formal" is meant the operations—the behavior—by which stimuli are perceived, encouraged, and responded to. By "contentual" is meant the actual content of the child's knowledge and comprehension. "Formal equipment" would include perceptual discrimination skills, the ability to sustain attention, and the ability to use adults

as sources of information and for satisfying curiosity. Also included would be the establishment of expectations of reward from accumulation of knowledge, from task completion, and from adult reinforcement, and the ability to delay gratification. Examples of "contentual equipment" would be the language-symbolic system, environmental information, general and environmental orientation, and concepts of comparability and relativity appropriate to the child's age level. The growth of a differentiated additum toward learning is probably a resultant of the interaction between formal and contentual levels.

Hypothesizing that stimulus deprivation will result in deficiencies in either of these equipments, let us examine the particular stimuli which are available and those which are absent from the environment of the child who comes from the conditions discussed above. This reasoning suggests also certain hypotheses regarding the role of environment in the evolving of the formal and contentual systems.

As was pointed out in the previous section, the disadvantaged environment as well as certain aspects of the middle-class circumstance offers the child, over-all, a restricted range of experience. While one does see great individual variability in these children, social conditions reduce the range of this variation; with less variety in input, it would be reasonable to assume a concomitant restriction in the variety of output. This is an important respect in which social poverty may have a leveling effect on the achievement of individual skills and abilities. Concomitantly, in the current problem of extensive under-achievement in suburban lower-middle-class areas, the over-routinization of activity with the consequent reduction in variety may well be the major factor.

In individual terms, a child is probably farther away from his maturational ceiling as a result of this experiential poverty. This might well be a crucial factor in the poorer performance of the lower socio-economic children on standardized tests of intelligence. On such tests, the child is compared with others of his own age. But if his point of development in relation to the maturational ceiling for his age group is influenced by his experience, then the child with restricted experience may actually be developed to a proportionately lower level of his own actual ceiling. If a certain quantum of fostering experience is necessary to activate the achievement of particular maturational levels, then perhaps the child who is deficient in this experience will take longer to achieve these levels, even though his potential may be the same as the more advantaged child. It might be that in order to achieve a realistic appraisal of the ability levels of children, an "experience" age rather than the chronological age should be used to arrive at norms.

This suggests a limitation on the frequent studies comparing Negro

and white children. Even when it is possible to control for the formal attributes of social class membership, the uniqueness of the Negro child's experience would make comparability impossible when limited to these class factors. Perhaps too, if such an interaction exists between experiential and biological determinants of development, it would account for the failure of the culture-free tests, as they too are standardized on an age basis without allowing for the experimental interaction (as distinguished from specific experimental *influence*).

Let us now consider some of the specifics in the child's environment, and their effects on the development of the formal, contentual, and attitudinal systems.

Visually, the urban slum and its overcrowded apartments offer the child a minimal range of stimuli. There are usually few if any pictures on the wall, and the objects in the household, be they toys, furniture, or utensils, tend to be sparse, repetitious, and lacking in form and color variations. The sparsity of objects and lack of diversity of home artifacts which are available and meaningful to the child, in addition to the unavailability of individualized training, gives the child few opportunities to manipulate and organize the visual properties of his environment and thus perceptually to organize and discriminate the nuances of that environment. These would include figure-ground relationships and the spatial organization of the visual field. The sparsity of manipulable objects probably also hampers the development of these functions in the tactile area. For example, while these children have broomsticks and usually a ball, possibly a doll or a discarded kitchen pot to play with, they don't have the different shapes and colors and sizes to manipulate which the middle-class child has in the form of blocks which are bought just for him, or even in the variety of sizes and shapes of cooking utensils which might be available to him as playthings.

It is true, as has been pointed out frequently, that the pioneer child didn't have many playthings either. But he had a more active responsibility toward the environment and a great variety of growing plants and other natural resources as well as a stable family that assumed a primary role for the education and training of the child. In addition, the intellectually normal or superior frontier child could and usually did grow up to be a farmer. Today's child will grow up into a world of automation requiring highly differentiated skills if he and society are to use his intellect.

The effect of sparsity of manipulable objects on visual perception is, of course, quite speculative, as few data now exist. However, it is an important area, as among skills necessary for reading are form discrimina-

tion and visual spatial organization. Children from depressed areas, because of inadequate training and stimulation, may not have developed the requisite skills by the time they enter first grade, and the assumption that they do possess these skills may thus add to the frustration these children experience on entering school.

The lower-class home is not a verbally oriented environment. The implications of this for language development will be considered below in the discussion of the contentual systems. Here let us consider its implication for the development of auditory discrimination skills. While the environment is a noisy one, the noise is not, for the most part, meaningful in relation to the child, and for him most of it is background. In the crowded apartments with all the daily living stresses, is a minimum of non-instructional conversation directed toward the child. In actuality, the situation is ideal for the child to learn inattention. Furthermore, he does not get practice in auditory discrimination or feedback from adults correcting his enunciation, pronunciation, and grammar. In studies at the Institute for Developmental Studies at New York Medical College, as yet unreported in the literature, we have found significant differences in auditory discrimination between lower-class and middle-class children in the first grade. These differences seem to diminish markedly as the children get older, though the effects of their early existence on other functioning remain to be investigated. Here again, we are dealing with a skill very important to reading. Our data indicate too that poor readers within social-class groups have significantly more difficulty in auditory discrimination than do good readers. Further, this difference between good and poor readers is greater for the lower-class group.

If the child learns to be inattentive in the pre-school environment, as has been postulated, this further diminishes incoming stimulation. Further, if this trained inattention comes about as a result of his being insufficiently called upon to respond to particular stimuli, then his general level of responsiveness will also be diminished. The nature of the total environment and the child-adult interaction is such that reinforcement is too infrequent, and, as a result, the quantity of response is diminished. The implications of this for the structured learning situation in the school are quite obvious.

Related to attentivity is memory. Here also we would postulate the dependence of the child, particularly in the pre-school period, on interaction with the parent. It is adults who link the past and the present by calling to mind prior shared experiences. The combination of the constriction in the use of language and in shared activity results, for the lower-class child, in much less stimulation of the early memory function.

Although I don't know of any data supporting this thesis, from my observations it would seem that there is a tendency for these children to be proportionately more present-oriented and less aware of past-present sequences than the middle-class child. This is consistent with anthropological research and thinking. While this could be a function of the poorer time orientation of these children or of their difficulty in verbal expression, both of which will be discussed below, it could also relate to a greater difficulty in seeing themselves in the past or in a different context. Another area which points up the home-school discontinuity is that of time. Anthropologists have pointed out that from culture to culture time concepts differ and that time as life's governor is a relatively modern phenomenon and one which finds most of its slaves in the lower-middle, middle-middle, and upper-middle classes. It might not even be an important factor in learning, but it is an essential feature in the measurement of children's performance by testing and in the adjustment of children to the organizational demands of the school. The middle-class teacher organizes the day by allowing a certain amount of time for each activity. Psychologists have long noticed that American Indian children, mountain children, and children from other non-industrial groups have great difficulty organizing their response tempo to meet time limitations. In the Orientation Scale developed at the Institute, we have found that lower-class children in the first grade had significantly greater difficulty than did middle-class children in handling items related to time judgments.

Another area in which the lower-class child lacks pre-school orientation is the well-inculcated expectation of reward for performance, especially for successful task completion. The lack of such expectation, of course, reduces motivation for beginning a task and, therefore, also makes less likely the self-reinforcement of activity through the gaining of feelings of competence. In these impoverished, broken homes there is very little of the type of interaction seen so commonly in middle-class homes, in which the parent sets a task for the child, observes its performance, and in some way rewards its completion. Neither, for most tasks, is there the disapproval which the middle-class child incurs when he does not perform properly or when he leaves something unfinished. Again, much of the organization of the classroom is based on the assumption that children anticipate rewards for performance and that they will respond in these terms to tasks which are set for them. This is not to imply that the young lower-class child is not given assignments in his home, nor that he is never given approval or punishment. Rather, the assignments tend to be motored in character, have a short time-span, and are more likely to relate to very concrete objects or services for people. The tasks given to pre-school

children in the middle-class are more likely to involve language and conceptual processes, and are thereby more attuned to the later school setting.

Related to the whole issue of the adult-child dynamic in establishing a basis for the later learning process is the ability of the child to use the adult as a source for information, correction and the reality testing involved in problem solving and the absorption of new knowledge. When free adult time is greatly limited, homes vastly overcrowded, economic stress chronic, and the general educational level very low—and, in addition, when adults in our media culture are aware of the inadequacy of their education—questions from children are not encouraged, as the adults might be embarrassed by their own limitations and anyway are too preoccupied with the business of just living and surviving. In the child's formulation of concepts of the world, the ability to formulate questions is an essential step in data gathering. If questions are not encouraged or if they are not responded to, this is a function which does not mature.

At the Institute, in our observations of children at the kindergarten level and in our discussions with parents, we find that many lower-class children have difficulty here. It follows that this problem, if it is not compensated for by special school efforts, becomes more serious later in the learning process, as more complex subject matter is introduced. It is here that questioning is not only desirable but essential, for if the child is not prepared to demand clarification he again falls further behind, the process of alienation from school is facilitated, and his inattentiveness becomes further reinforced as he just does not understand what is being presented.

It is generally agreed that the language-symbolic process plays an important role at all levels of learning. It is included here under the "contextual" rubric because language development evolves through the correct labeling of the environment, and through the use of appropriate words for the relating and combining and recombining of the concrete and abstract components in describing, interpreting, and communicating perceptions, experiences, and ideational matter. One can postulate on considerable evidence that language is one of the areas which is most sensitive to the impact of the multiplicity of problems associated with the stimulus deprivation found in the marginal circumstances of lower-class life. There are various dimensions of language, and for each of these it is possible to evaluate the influence of the verbal environment of the home and its immediate neighborhood.

In order for a child to handle multiple attributes of words and to associate words with their proper referents, a great deal of exposure to language is presupposed. Such exposure involves training, experimenting with identifying objects and having corrective feedback, listening to a

variety of verbal material, and just observing adult language usage. Exposure of children to this type of experience is one of the great strengths of the middle-class home, and concomitantly represents a weakness in the lower-class home. In a middle-class home also, the availability of a great range of objects to be labeled and verbally related to each other strengthens the over-all language fluency of the child and gives him a basis for both understanding the teacher and for being able to communicate with her on various levels. An implicit hypothesis in a recent Institute survey of verbal skills is that verbal fluency is strongly related to reading skills and to other highly organized integrative and conceptual verbal activity.

The acquisition of language facility and fluency and experience with the multiple attributes of words is particularly important in view of the estimate that only 60 to 80 per cent of any sustained communication is usually heard. Knowledge of context and of the systematic organization of a language make correct comprehension and comprehension of the speech sequence possible. This comprehension occurs as a result of the correct anticipation of the sequence of language and thought. The child who has not achieved these anticipatory language skills is greatly handicapped in school. Thus for the child who already is deficient in auditory discrimination and in ability to sustain attention, it becomes increasingly important that he have the very skills he lacks most.

The problem in developing preventive and early remedial programs for these children is in determining the emphasis on the various areas that need remediation. For example, would it be more effective to place the greatest emphasis on the training of auditory discrimination, or on attentional mechanisms, or on anticipatory receptive language functions in order to achieve the primary goal of enabling the child to understand his teacher? In programming special remedial procedures, we do not know how much variation we will find from child to child, or if social-class experience creates a sufficiently homogeneous pattern of deficit so that the fact of any intervention and systematic training may be more important than its sequence. If this is so, the intervention would probably be most valid in the language area, because the large group of lower-class children with the kinds of deficits mentioned are probably motivationally ready for more complex language functioning than they have achieved. Language knowledge, once acquired, can be self-reinforcing in just communicating with peers or talking to oneself.

In observations of lower-class homes, it appears that speech sequences seem to be temporally very limited and poorly structured systematically. It is thus not surprising to find that a major focus of deficit in the children's

language development is syntactical organization and subject continuity. In preliminary analysis of expressive and receptive language data on samples of middle- and lower-class children at the first- and fifth-grade levels, there are indications that the lower-class child has more expressive language ability than is generally recognized or than emerges in the classroom. The main differences between the social classes seem to lie in the level of syntactical organization. If, as is indicated in this research, with proper stimulation a surprisingly high level of expressive language functioning is available to the same children who show syntactical deficits, then we might conclude that the language variables we are dealing with here are by-products of social experience rather than indices of basic ability or intellectual level. This again suggests another possibly vital area to be included in an enrichment or a remedial program: training in the use of word sequences to relate and unify cognitions.

Also on the basis of preliminary analysis of data, it appears that retarded readers have the most difficulty with the organization of expressive language.

In another type of social-class-related language analysis, Bernstein (1960), an English sociologist, has pointed out that the lower-class tends to use informal language and mainly to convey concrete needs and immediate consequences, while the middle-class usage tends to be more formal and to emphasize the relating of concepts. This difference between these two milieus, then, might explain the finding in some of our recent research that the middle-class fifth-grade child has an advantage over the lower-class fifth grader in tasks where precise and somewhat abstract language is required for solution. Further, Bernstein's reasoning would again emphasize the communication gap which exists between the middle-class teacher and the lower-class child.

Though it might belong more in the formal than in the contentual area, one can postulate that the absence of well-structured routine and activity in the home is reflected in the difficulty that the lower-class child has in structuring language. The implication of this for curriculum in the kindergarten and nursery school would be that these children should be offered a great deal of verbalized routine and regulation so that expectation can be built up in the child and then met.

According to Piaget's theories, later problem-solving and logical abilities are built on the earlier and orderly progression through a series of developmental stages involving the active interaction between the child and his environment. This is considered a maturational process, though highly related to experience and practice. Language development does not occupy a super-ordinate position. However, Whorf, Vygotsky, and

some contemporary theorists have made language the essential ingredient in concept formation, problem-solving, and in the relating to an interpretation of the environment. Current data at the Institute tend to indicate that class differences in perceptual abilities and in general environmental orientation decrease with chronological age, whereas language differences tend to increase. These might tentatively be interpreted to mean that perceptual development occurs first and that language growth and its importance in problem solving comes later. If later data and further analysis support this interpretation, then the implication would be that the lower-class child comes to school with major deficits in the perceptual rather than the language area. Perhaps the poverty of his experience has slowed his rate of maturation. Then by requiring, without the antecedent verbal preparation, a relatively high level of language skill, the school may contribute to an increase in the child's deficit in this area, relative to middle-class children. Meanwhile, his increased experience and normal maturational processes stimulate perceptual development, and that deficit is overcome. But the child is left with a language handicap. The remedy for such a situation would be emphasis on perceptual training for these children in the early school, or, better, pre-school, years, combined with a more gradual introduction of language training and requirements.

This theory and interpretation are somewhat, but by no means wholly, in conflict with the previous discussion of language. In an area where there is as yet much uncertainty, it is important to consider as many alternatives as possible, in order not to restrict experimentation.

In any event, whether or not we consider language skills as primary mediators in concept formation and problem solving, the lower-class child seems to be at a disadvantage at the point of entry into the formal learning process.

The other contextual factors that so often result in a poorly prepared child being brought to the school situation are closely interrelated with language. Briefly, they revolve around the child's understanding and knowledge of the physical, geographic, and geometric characteristics of the world around him, as well as information about his self-identity and some of the more macroscopic items of general information. It could be reasonably expected, for example, that a kindergarten or first-grade child who is not mentally defective would know both his first and last names, his address or the city he lives in, would have a rudimentary concept of number relationships, and would know something about the differences between near and far, high and low, and similar relational concepts. Much of what happens in school is predicated on the prior availability of this basic information. We know that educational procedures frequently pre-

ceed without establishing the actual existence of such a baseline. Again, in the lower-class child it cannot be taken for granted that the home experience has supplied this information or that it has tested the child for this knowledge. In facilitating the learning process in these children, the school must expect frequently to do a portion of the job traditionally assigned to the home, and curriculum must be reorganized to provide for establishing a good base. This type of basic information is essential so that the child can relate the input of new information to some stable core.

From all of the foregoing, it is obvious that the lower-class child when he enters school has as many problems in understanding what it is all about and why he is there as school personnel have in relating traditional curriculum and learning procedures to this child. Some reorientation is really necessary, as discussion of these problems almost always focuses on the problems the school has, rather than on the enormous confusion, hesitations, and frustrations the child experiences and does not have the language to articulate when he meets an essentially rigid set of academic expectations. Again, from all the foregoing, the child, from the time he enters school and is exposed to assumptions about him derived from experience with the middle-class child, has few success experiences and much failure and generalized frustration, and thus begins the alienating process in the direction of the apathetic and disgruntled fifth grader described earlier.

The frustration inherent in not understanding, not succeeding, and not being stimulated in the school—although being exploited by it, creates a basis for the further development of negative self-images and low evaluations of individual competencies. This would be especially true for the Negro child who, as we know from doll-play and other studies, starts reflecting the social bias in his own self-image at very early ages. No matter how the parents might aspire to a higher achievement level for their child, their lack of knowledge as to the operational implementation, combined with the child's early failure experiences in school, can so effectively attenuate confidence in his ability ever to handle competently challenges in the academic area, that the child loses all motivation.

It is important to state that not all the negative factors and deficits discussed here are present in every or even in any one child. Rather, there is a patterning of socially determined school-achievement-related disabilities which tends initially to set artificially low ceilings for these children: initially artificial, because as age increases it becomes more and more difficult for these children to develop compensatory mechanisms, to respond to special programs, or to make the psychological readjustments required to overcome the cumulative effects of their early deficits.

It is also important to state that there are strengths and positive features associated with lower-class life. Unfortunately, they generally tend not to be, at least immediately, congruent with the demands of the school. For example, lack of close supervision or protection fosters the growth of independence in lower-class children. However, this independence—and probably confidence—in regard to the handling of younger siblings, the crossing of streets, self-care, and creating of their own amusements, does not necessarily meaningfully transfer to the unfamiliar world of books, language, and abstract thought.

School Conditions

Educational factors have of course been interlaced throughout this discussion, but there are some special features that need separate delineation.

The lower-class child probably enters school with a nebulous and essentially neutral attitude. His home rarely, if ever, negatively predisposes him toward the school situation, though it might not offer positive motivation and correct interpretation of the school experience. It is in the school situation that the highly charged negative attitudes toward learning evolve, and the responsibility for such large groups of normal children showing great scholastic retardation, the high drop-out rate, and to some extent the delinquency problem, must rest with the failure of the school to promote the proper acculturation of these children. Through some of the responsibility may be shared by the larger society, the school, as the institution of that society, offers the only mechanism by which the job can be done.

It is unfair to imply that the school has all the appropriate methods at its disposal and has somehow chosen not to apply them. On the contrary, what is called for is flexible experimentation in the development of new methods, the clear delineation of the problem, and the training and retraining of administrative and teaching personnel in the educational philosophy and the learning procedures that this problem requires.

In addition, the school should assume responsibility for a systematic plan for the education of the child in the areas that have been delineated here by the time the child reaches kindergarten or first grade. This does not mean that the school will abrogate the family's role with regard to the child, but rather that the school will insure both the intellectual and the attitudinal receptivity of each child to its requirements. Part of a hypothesis now being tested in a new pre-school program is based on the assumption that early intervention by well-structured programs will significantly reduce the attenuating influence of the socially marginal environment.

What might be necessary to establish the required base to assure the eventual full participation of these children in the opportunity structure offered by the educational system is an ungraded sequence from age 3 or 4 through 8, with a low teacher-pupil ratio. Perhaps, also, the school system should make full use of anthropologists, sociologists, and social psychologists for description and interpretation of the cultural discontinuities which face the individual child when he enters school. In addition, the previously discussed patterning of deficits and strengths should be evaluated for each child and placed in a format which the teacher can use as a guide. In the early years this would enable diagnostic reviews of the intellectual functioning of each child, so that learning procedures, to whatever extent possible, could be appropriate to a particular child's needs. New evaluation techniques must be developed for this purpose, as the standardized procedures generally cannot produce accurate evaluation of the functioning level or achievement potential of these children.

Possibly most important would be the greater utilization by educators in both curriculum development and teacher training of the new and enormous knowledge, techniques, and researches in the social and behavioral sciences. Similarly, social and behavioral scientists have in the school a wonderful laboratory to study the interpenetration and interaction of fundamental social, cognitive, psychological, and developmental processes. Close and continuing collaboration, thus, should be mutually productive and satisfying, and is strongly indicated.

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